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(54) Title: DISPIRO 1,2,4-TRIOXOLANE ANTIMALARIALS

(57) Abstract: A means and method for treating malaria, schistosomiasis, and cancer using a spiro or dispiro 1,2,4-trioxolane is described. The preferred 1,2,4-trioxolanes include a spiroadamantane group on one side of the trioxolane group, and a spirocyclohexyl on the other side of the trioxolane group. In comparison to artemisinin semisynthetic derivatives, the compounds of this invention are structurally simple, easy to synthesize, non-toxic, and potent against malarial parasites. The compounds of the invention unexpectedly provide a single-dose cure for malaria, as well as prophylactic activity against the same. The compounds are also active against schistosomiasis and cancer.

WO 2009/058859 A3